

CLAIMS

What is claimed is:

- 5
1. In a data communications device, a method for controlling a data stream, comprising the steps of:
- 10 receiving a request signal from a request signal source, the request signal requesting, from a host computer that is different than the data communications device, control information for controlling a manner in which the request signal source transfers the data stream;
- generating a control signal in response to the request signal, the control signal including the control information for controlling the manner in which the request signal source transfers the data stream; and
- 15 providing the control signal to the request signal source to individually control the manner in which the request signal source transfers the data stream among multiple data streams transferred by the request signal source.
- 20
2. The method of claim 1 wherein the request signal source is a data communications mechanism operating within the data communications device.
3. The method of claim 1 wherein the step of generating the control signal includes the steps of:
- forming the control signal without communicating with the host computer in response to request signal.
- 25
4. The method of claim 1 wherein the data stream is a ReSerVation Protocol session, and wherein the control information of the control signal includes ReSerVation Protocol instructions.

5. The method of claim 1 wherein the data stream is a multicast session, and wherein the control information of the control signal includes Internet Group Management Protocol instructions.
- 5 6. The method of claim 1, further comprising the step of:
performing an operation that decides whether to contact the host computer for assistance in response to the request signal, a result of the operation directing the data communications device not to contact the host computer in response to the request signal.
- 10 7. The method of claim 1 wherein data within the data stream indicates that the host computer is an originator of the data stream.
- 15 8. The method of claim 1 wherein data within the data stream indicates that the host computer is an intended recipient of the data stream.
- 20 9. The method of claim 1 wherein the request signal is an interprocess communication signal, and wherein the step of receiving the request signal includes the step of:
obtaining, by a host agent operating within the data communications device and acting on behalf of the host computer, the request signal from the request signal source through an interprocess communication interface of the host agent.

10. A data communications device, comprising:

multiple network ports;

memory that stores an application; and

a controller coupled to the multiple network ports and the memory, an agent process running on the controller when the controller operates in accordance with the application stored in the memory such that the agent:

receives a request signal from a request signal source, the request signal requesting, from a host computer that is different than the data communications device, control information for controlling a manner in which the request signal source transfers the data stream;

generates a control signal in response to the request signal, the control signal including the control information for controlling the manner in which the request signal source transfers the data stream; and

provides the control signal to the request signal source to individually control the manner in which the request signal source transfers the data stream among multiple data streams transferred by the request signal source.

11. The data communications device of claim 10 wherein the request signal source is a data communications mechanism operating within the data communications device.

12. The data communications device of claim 10 wherein the agent forms the control signal without communicating with the host computer in response to request signal when the agent generates the control signal.

13. The data communications device of claim 10 wherein the data stream is a ReSerVation Protocol session, and wherein the control information of the control signal includes ReSerVation Protocol instructions.
- 5 14. The data communications device of claim 10 wherein the data stream is a multicast session, and wherein the control information of the control signal includes Internet Group Management Protocol instructions.
- 10 15. The data communications device of claim 10 wherein the agent further performs an operation that decides whether to contact the host computer for assistance in response to the request signal, a result of the operation directing the data communications device not to contact the host computer in response to the request signal.
- 15 16. The data communications device of claim 10 wherein data within the data stream indicates that the host computer is an originator of the data stream.
- 20 17. The data communications device of claim 10 wherein data within the data stream indicates that the host computer is an intended recipient of the data stream.
- 25 18. The data communications device of claim 10 wherein the request signal is an interprocess communication signal, and wherein the host agent receives the request signal from the request signal source through an interprocess communication interface of the host agent when acting on behalf of the host computer.

SUB 10

SUB 17

SUB 18

SUB A⁵ 19.

A computer program product that includes a computer readable medium having instructions stored thereon for controlling a data stream, such that the instructions, when processed by a data communications device, cause the data communications device to perform the steps of:

5 receiving a request signal from a request signal source, the request signal requesting, from a host computer that is different than the data communications device, control information for controlling a manner in which the request signal source transfers the data stream;

10 generating a control signal in response to the request signal, the control signal including the control information for controlling the manner in which the request signal source transfers the data stream; and

providing the control signal to the request signal source to individually control the manner in which the request signal source transfers the data stream among multiple data streams transferred by the request signal source.

15

SUB A⁶

20. The computer program product of claim 19 wherein the request signal source is a data communications mechanism operating within the data communications device, and wherein the computer readable medium further includes instructions stored thereon for directing operation of the request signal source.

20

Added A⁶

Added A⁷